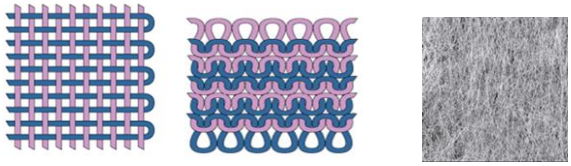
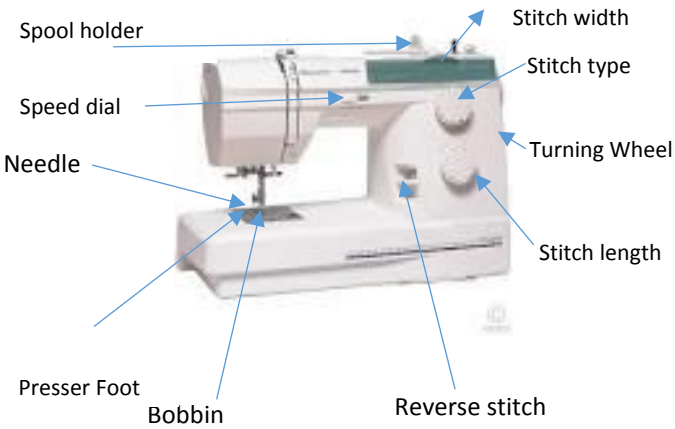
Year 11 Textiles -Knowledge Organiser

Key Words and Definitions:					
Aesthetics	The visual appeal of a design/ product	**Facing**	The fabric used on the inside of hems/edges to neaten a product	**Organic**	Fibres which are produced naturally without using herbicides or pesticides
Blended fibre	Two or more fibres spun together to make a yarn	**Flammable**	Likely to catch fire	**Fairtrade**	Partnership between producers and consumers to ensure works get fair wages
Bonded	Webs of fibres which are pressed together using adhesives or heat	**Haute couture**	French term for high fashion	**Toile**	A rough first version of a garment
CAD/CAM	Computer aided design/ computer aided manufacture	**Interactive fabrics**	A product which requires a power source to activate its features	**Prototype**	A version of a product to use for testing and also to present to a client
Care label	Label containing information on how to care for and maintain a product	**Interfacing**	An extra layer of fabric between fabric and facing to help add shape to a product	**Staple fibre**	Short fibres usually natural
Colourfast	How well a fabric keeps dyes applied to it even after washing	**Laminated**	When 2 or more fabrics are bonded toegtehr to enhance the fabrics properties	**Sustainable**	Something which can be manufactured with little or no negative impact on the environment and workers
Disassembly	Taking a product apart to analyse how it is made.	**Pattern**	A template used to cut out the fabric	**Pret a porter**	Ready to wear fashion
Drape	How a fabric hangs	**Components**	Buttons, zips, sequins not pockets	**Specification**	A list of requirements that a product must meet

Fabric construction.



Woven Knitted Bonded/ non-woven



Synthetic fibres properties

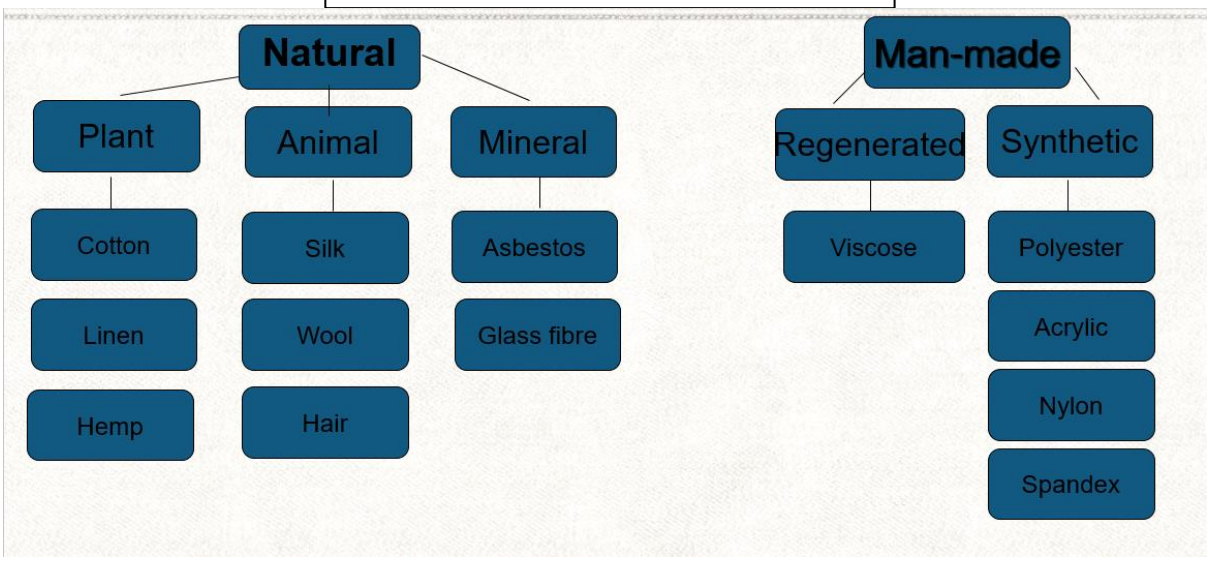
Regenerated fibres

These are similar to cotton, they are made from cellulose (plant) based fibres a chemical is added to extract the cellulose fibres. Regenerated fibres are part natural and part artificial. Examples are:

Viscose
Rayon
Acetate
Tencel
Modal

The properties of regenerated fibres are: Highly absorbent, washable, soft, smooth, comfortable to wear and have a good drape.

Classification of fibres



Smart materials- a smart materials is a materials which responds to changes in the environment	
Smart material	Description
Thermochromic dye	Thermochronic dye responds to changes in temperature (heat) and will change colour
Solvation chromism	This responds to changes in moisture and changes colour- can be used on babies' nappies
Photochromic	These dyes respond to changes in light (UV) and will change colour

Modern and interactive fibres/ fabrics	
Biomimetics	Fabrics which mimic nature Speedo fast skin mimics shark skin Stomatex mimics the way leaves breathes and regulates temperatures keeping wearer cool
Microencapsulation	Fabrics are impregnated with microscopic perfume, anti-bacterial properties, anti-allergic properties.
Buoyancy and inflatable	Thermofloat a buoyancy textile used in lifejackets Inflatable components used in bras and children's swim wear.
Reflective textiles	Developed for night time use on clothes, bags and sportswear- fabric reflects light and often used in safety wear.
Phosphorescent textiles	Used for glow in the dark products
Fibre optics	Used in trainers' fibre optic sensors inserted to make product light up also been used for military use to detect harmful chemicals
Nanotechnology	Nanofibres are made with tiny particles which can be engineered to have a range of modern properties to improve the performance of the fibre/ fabric.

Properties and use of natural fibres		
Natural Fibre	**Properties**	**Uses**
Cotton	Strong, absorbent, cool to wear, hard wearing, creases easily, easy to care for	Clothing, soft furnishings
Wool	Warm, absorbent,	Warm outer wear e.g. jumpers, carpets, blankets, soft furnishings
Silk	Comfortable to wear, soft, absorbent, expensive, natural sheen	Luxury clothing and furnishing